

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 - 68. (canceled).

69. (new) A method for converting interface definitions within a source code program into an intermediate format by a computer system which carries out the method, comprising the following steps:

identifying a plurality of objects, of which at least one object is an object in the source code program;

identifying at least one interface for each of at least two of the objects, wherein at least one of the interfaces is an input interface and at least one of the interfaces is an output interface;

identifying at least one link between at least two of the objects;

creating an at least two-dimensional intermediate format table with cells at the intersections of rows disposed in a first dimension and rows disposed in a second dimension;

assigning designations for each of the objects in the source code program to a number of first rows in the first

dimension, which is equal to the number of objects in the source code program;

assigning designations for each of the links to a number of first rows in the second dimension, which is equal to the number of links;

assigning the designation of the interface to each cell at an intersection of one of the first rows in the first dimension with one of the first rows in the second dimension, by which the object associated with the first row in the first dimension is connected to the link associated with the first row in the second dimension.

70. (new) The method as claimed in claim 69, wherein at least one of the links is an internal link.

71. (new) The method as claimed in claim 69, wherein at least one of the links is an external link.

72. (new) The method as claimed in claim 71, wherein in a first specific row in the first dimension, indicating the mode of the external interface of the at least one identified external link by assigning the designation of the mode to the cells which are located at the intersections of the first specific row in the first dimension and those of the first

rows in the second dimension to which designations of the external links are assigned.

73. (new) The method as claimed in claim 72, wherein each of the at least one external interface is an input interface, an output interface, a bidirectional interface or an interface with an undefined flow direction.

74. (new) The method as claimed in claim 69, wherein in addition,

determining the data types of the at least one identified interface;

in at least one second specific row in the first dimension, indicating the data types of the at least one identified interface, and assigning the designations for the data types associated with the at least one identified link to cells at the intersections of one of the second specific rows in the first dimension and one of the first rows in the second dimension.

75. (new) The method as claimed in claim 69, wherein in addition,

identifying at least one constant in at least one of the objects;

the data type of the at least one identified constant is determined;

in at least one third specific row in the first dimension the data type of the at least one constant is indicated;

in at least one first specific row in the second dimension designations of the at least one constant are indicated; and

the designation of the data type is assigned to the cells at the intersection of one of the at least one third specific rows in the first dimension and one of the at least one first specific rows in the second dimension.

76. (new) The method as claimed in claim 75, further comprising:

determining the value or the method of calculation of the at least one identified constant;

in at least one fourth specific row in the first dimension, indicating the value or the method of calculation of the at least one constant by assigning the designation of the value or the method of calculation to cells at intersections of one of the at least one fourth specific rows in the first dimension and one of the at least one first specific rows in the second dimension.

77. (new) The method as claimed in claim 75, wherein at least one of the constants is an internal constant.

78. (new) The method as claimed in claim 75, wherein at least one of the constants is an external constant.

79. (new) The method as claimed in claim 69, further comprising:

determining the value or the method of calculation of at least one identified link;

in at least one fifth specific row in the first dimension, indicating the value or the method of calculation of the at least one identified link by assigning the designation of the value or the method of calculation of the at least one identified link to the cells at the intersections of one of the at least one fifth specific rows in the first dimension and one of the first rows in the second dimension.

80. (new) The method as claimed in claim 69, wherein in addition original identifiers from the source code program are identified and are inserted into cells of specific title rows.

81. (new) The method as claimed in claim 80, wherein one original designation from the source code program is the designation of one of the at least one objects in the source

code program, one of the at least one links or one of the at least one constants.

82. (new) The method as claimed in claim 69, wherein the designations of the at least one interface includes an identifier for the respective interface and at least one indication, which is the mode or the data type or the value of the interface or a data converting function which is to be applied to the interface.

83. (new) The method as claimed in claim 69, wherein in addition original designations of the at least one interface are identified in the source code program and are used as the identifier.

84. (new) The method as claimed in claim 69, wherein the source code program is a code in a hardware description language.

85. (new) The method as claimed in claim 84, wherein at least one object represents an interface entity of an electronic component.

86. (new) The method as claimed in claim 84, wherein at least one internal link represents a signal.

87. (new) The method as claimed in claim 84, wherein at least one external link represents a port.

88. (new) The method as claimed in claim 69, wherein in addition,

at least one of the identified objects contains a sub source code program, which is converted into an intermediate format in form of a sub format table;

in a cell of the row in the first dimension associated with the converted object a cross-reference to the sub format table is inserted.

89. (new) The method as claimed in claim 69, wherein a cross-reference to at least one identified object which is stored as a separate unit as source code program is inserted into a cell of the row in the first dimension associated with the stored object.

90. (new) A method for converting interface information from an intermediate format table into target program code by a computer system executing the method, which comprises:

providing an at least two-dimensional intermediate format table having cells at intersections of rows disposed in a first dimension and rows disposed in a second dimension,

assigning designations for at least one object to at least one first row in the first dimension;

assigning designations for at least one link to at least one first row in the second dimension;

assigning designation of at least one interface to each cell at an intersection of one of the first rows in the first dimension and one of the first rows in the second dimension, by which the object associated with the first row in the first dimension is connected to the link associated with the first row in the second dimension;

creating at least one program code object on the basis of the information contained in the intermediate format table about the at least one object;

assigning internal interfaces to the at least one program code object on the basis of the information contained in the intermediate format table;

creating at least one link between program code objects on the basis of information contained in the intermediate format table about the internal links of the internal interfaces; and

assigning external interfaces to the at least one program code object on the basis of the information contained in the intermediate format table.

91. (new) The method as claimed in claim 90, wherein at least one interface is an input interface and wherein at least one interface is an output interface.

92. (new) The method as claimed in claim 90, wherein inserting data types of the at least one interface or assigned to at least one second specific row in the first dimension of the intermediate format table and designations of the data types associated with the at least one link into cells at the intersections of one of the at least one second specific rows in the first dimension and one of the first rows in the second dimension for designation of the at least one link;

in addition, defining the data types of the interface assigned to the at least one program code object and associated with the at least one link.

93. (new) The method as claimed in claim 90, wherein indicating in at least one third specific row in the first dimension of the intermediate format table data types of at least one constant;

indicating in at least one first specific row in the second dimension of the intermediate format table designations of the at least one constant;

associating designations of the data type of the respective constant with cells at the intersections of at least one third specific row in the first dimension and the at least one first specific row in the second dimension;

in addition, defining at least one constant in the at least one program code object or in the general part of the target program code.

94. (new) The method as claimed in claim 90, wherein indicating data types of at least one constant in at least one third specific row in the first dimension of the intermediate format table;

indicating designations of the at least one constant in at least one first specific row in the second dimension of the intermediate format table;

associating designations for the data type of the respective constant with cells at the intersections of at least one third specific row in the first dimension and the at least one first specific row in the second dimension;

in addition, defining at least one constant in the at least one program code object and in the general part of the target program code.

95. (new) The method as claimed in claim 93, wherein

in at least one fourth specific row in the first dimension of the intermediate format table the value or the method of calculation of the at least one constant is indicated by assigning the value or the method of calculation to the cells at the intersections of one of the at least one fourth specific rows in the first dimension and one of the at least one first specific rows in the second dimension;

in addition, the value or the method of calculation of the at least one constant is assigned to the at least one constant defined in the program code.

96. (new) The method as claimed in claim 93, wherein at least one of the constants is an internal constant.

97. (new) The method as claimed in claim 93, wherein at least one of the constants is an external constant.

98. (new) The method as claimed in claim 90, wherein in at least one fifth specific row in the first dimension of the intermediate format table the value or the method of calculation of the at least one link is indicated by assigning the designation of the value or the method of calculation to cells at the intersections of the at least one fifth specific row in the first dimension and one of the first rows in the second dimension for the designation of the at least one link;

in addition, the value or the method of calculation of the at least one link is assigned to the link generated in the target program code.

99. (new) The method as claimed in the claim 90, wherein designations of the at least one object, the at least one link or the at least one constant are inserted into cells of specific title rows of the intermediate format table.

100. (new) The method as claimed in the claim 90, wherein designations of the at least one object, the at least one link and the at least one constant are inserted into cells of specific title rows of the intermediate format table.

101. (new) The method as claimed in the claim 90, wherein in addition, the at least one program code object, the at least one link or the at least one constant are named on the basis of the designations in the cells of the specific title rows of the intermediate format table.

102. (new) The method as claimed in the claim 90, wherein in addition, the at least one program code object, the at least one link and the at least one constant are named on the basis of the designations in the cells of the specific title rows of the intermediate format table.

103. (new) The method as claimed in claim 90, wherein
in at least one cell of the row in the first dimension of
the intermediate format table associated with the object a
cross-reference to a sub format table is inserted;
in addition, the program code object generated from the
object is connected to the sub program code generated from the
sub format table.

104. (new) The method as claimed in claim 90, wherein
in at least one cell of the row in the first dimension of
the intermediate format table associated with an object a
cross-reference to a source code program stored as a separate
unit is inserted;
in addition, the program code object generated from the
object is linked to the source code program stored as separate
unit.

105. (new) An apparatus, comprising a computer system to
create an intermediate format table to store interface
information in a computer system, which interface information
is contained in a program code, wherein the intermediate
format table includes:
at least two dimensions;

cells at intersections of rows disposed in a first dimension and rows disposed in a second dimension; a number of first rows in the first dimension, which is equal to the number of at least one object in the program code, have designations for each of the objects assigned thereto;

a number of first rows in the second dimension, which is equal to the number of at least one link in the program code, have designations for each of the links assigned thereto; and

each cell at an intersection of one of the first rows in the first dimension and one of the first rows in the second dimension have the designation of an interface assigned thereto by which the object associated with the first row in the first dimension is connected to the link associated with the first row in the second dimension.

106. (new) The apparatus as claimed in claim 105, wherein at least one of the links is an internal link.

107. (new) The apparatus as claimed in claim 105, wherein at least one of the links is an external link.

108. (new) The apparatus as claimed in claim 105, wherein at least one of the interfaces is an internal interface.

109. (new) The apparatus as claimed in claim 105, wherein at least one of the interfaces is an external interface.

110. (new) The apparatus as claimed in claim 109, wherein the mode of the at least one external interface of the at least one external link is indicated in one first specific row in the first dimension of the intermediate format table by assigning the designation of the mode to cells at the intersections of the first specific row in the first dimension and the first rows in the second dimension to which designations of the external links are assigned.

111. (new) The apparatus as claimed in claim 105, wherein in at least one second specific row in the first dimension the data types of the at least one interface are indicated by assigning the designation of the data types to cells at the intersections of one of the at least one second specific rows in the first dimension and one of the first rows in the second dimension.

112. (new) The apparatus as claimed in claim 105, wherein in at least one third specific row in the first dimension the data types of at least one constant are indicated by assigning the designation of the data types to cells at the intersections of the at least one third specific row in the

first dimension and one of at least one first specific rows in the second dimension for designation of the at least one constant.

113. (new) The apparatus as claimed in claim 112, wherein in at least one fourth specific row in the first dimension the value or the method of calculation of at least one constant is indicated by assigning the designation of the value or the method of calculation to cells at the intersections of one of the at least one fourth specific row in the first dimension and one of the at least one first specific rows in the second dimension.

114. (new) The apparatus as claimed in claim 112, wherein at least one of the constants is an internal constant.

115. (new) The apparatus as claimed in claim 112, wherein at least one of the constants is an external constant.

116. (new) The apparatus as claimed in claim 105, wherein in at least one fifth specific row in the first dimension the value or the method of calculation of the at least one link is indicated by assigning the designation of the value or the method of calculation to cells at the intersections of the at

least one fifth specific row and one of the first rows in the second dimension for designation of a link.

117. (new) The apparatus as claimed in claim 105, wherein the original designation of the at least one object, the at least one link or the at least one constant in the program code is inserted into cells of specific title rows.

118. (new) The apparatus as claimed in claim 105, wherein the original designations of the at least one object, the at least one link and the at least one constant in the program code are inserted into cells of specific title rows.

119. (new) The apparatus as claimed in claim 105, wherein each designation of one of the at least one interfaces comprises and identifier for the respective interface as well as at least one indication, wherein each of the indications is either the mode or the data type or the default value of the interface or a data converting function to be applied to the interface.

120. (new) The apparatus as claimed in claim 105, wherein any desired cells of the intermediate format table comprise annotations, which serve to control programs for analyses of information contained in the intermediate format table.

121. (new) The apparatus as claimed in claim 105, wherein any desired cells of the intermediate format table comprise annotations which serve for the information of the user.

122. (new) The apparatus as claimed in claim 120, wherein the annotations are contained in at least one further dimension of the intermediate format table, specific types of annotations are assigned to rows in the further dimension, at those intersections of the rows in the first dimension or the rows in the second dimension of the intermediate format table which govern the annotations and the row in the further dimension which is assigned to the type of annotation to the inserted the annotation is inserted.